

REMARKS/ARGUMENTS

The Office Action dated February 19, 2009 has been received and noted.

Applicant thanks the Examiner for the courtesy of a telephone conference with the undersigned which occurred on May 4, 2009. The undersigned noted that there was a typographical error in the Examiner's listing of Claim 1 in the Office Action, and that the second filter element has a second mesh size, not a first mesh size. The prior art was discussed and no agreement regarding allowable claims was reached.

The majority of the claims were rejected as being unpatentable over Jensen in view of Cote or More. The rejection by the Examiner is traversed, particularly with respect to claims such as dependent Claim 2 which recited a combination of a first filter having a first mesh size, a second filter having a second mesh size, a first spray outlet providing a spray into the air flow path and directed to a front surface of the first filter, and a second spray outlet providing a second spray into the air flow path and directed to a rear surface of the first filter. Applicant submits that none of Jensen, Cote, or More teaches a self-cleaning exhaust system with first and second mesh filters and first and second sprays directed to a front surface and a rear surface of the first filter, respectively.

In the paragraph bridging pages 4 and 5 of the Office Action, the Examiner contends that it would be obvious to apply Cote's progressively-finer mesh sizes in its tertiary filter in place of Jensen's first and second baffles. Cote, like Jensen, has several baffles, but Cote does not teach replacing these baffles with the tertiary filter, but rather positions the baffles upstream from the tertiary filter. If this concept from Cote is applied to Jensen, the theoretical combination would provide Jensen with a

tertiary filter downstream from the first and second baffles, with spraying being provided on the baffles and not the tertiary filter.

The combination of More and Jensen is more problematic. More teaches that when droplets begin to form on the outer surface of the pre-filter, the pre-filter needs to be replaced. This disclosure teaches that More's pre-filter is not suitable for cleaning by a spray. Moreover, More reiterates in its background that cleaning filter elements is a messy, inconvenient process, and that deposits may be difficult to remove, requiring harsh chemicals. More thus avoids any cleaning of the pre-filter. More's pre-filter is clearly not intended nor is it suitable for being cleaned with a spray.

Each of the independent claims has nevertheless been amended to recite that the exhaust system includes a first spray outlet for providing a first fine spray into the air flow and directed to a front surface of the first filter, and a second spray outlet for providing a second coarse spray into the air flow and directed to a rear surface of the first filter. In combination with the remaining elements of the independent claims, Applicant submits that the amended claims are patentably distinguishable from the cited references.

With respect to previous dependent claims 3 and 24, the Examiner commented that Carns taught first and second sprays, and that to form the first spray to provide a fine spray and the second spray a coarse spray "can be viewed as nothing more than merely matters of choice in design absent the showing of any new or unexpected results produced therefrom over the prior art of record." Applicant disagrees with this position, and first notes that none of the prior art cited by the Examiner discloses the concept of a first fine spray and a second coarse spray each for cleaning a front

surface and a rear surface of a first filter. The prior art instead assumes that the sprays would be identical, and a cursory review of prior art would lead one to conclude that first and second sprays of equal droplet sizes would work well. "Choice in design" alternatives are neither taught nor suggested by the cited references. New and unexpected results may be an indication of nonobviousness, but legally should not be required if the claim is novel and the cited art fails to suggest the claimed combination.

Applicant further submits that the reason of the first fine spray and the second coarse spray as set forth in the independent claims is not a matter of routine engineering. As noted in the application, the first spray is preferably fine to allow the air flow to pull the fine mist particles toward the front surface of the first filter. The first spray is fine to significantly reduce the risk that first spray droplets may reflect off the front surface of the first filter and fall into the cooking area, thus causing food contamination. The second spray, on the other hand, is a coarse spray having larger droplets, and Applicant has discovered that the coarse second spray cleans the first filter more rigorously and thus better than a fine second spray. The larger droplets of the second spray thus result in a spraying action which is more effective at cleaning the first filter than the smaller droplets of the first spray. The coarse second spray does not carry the risk of food contamination since, as recited in the independent claims, the second spray is upstream from the first filter, and since droplet reflections off the rear surface of the first filter are carried downstream, preferably to the second filter, and away from the cooking area. An unexpected advantage arising from the coarse second spray is that the droplets that reflect off the rear surface of the first filter

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may combine with contaminants downstream from the first filter to improve
contaminant capture.

In view of the above, early allowance of the application is requested.

Respectfully submitted,


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